

NATIONAL COASTAL ASSESSMENT

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WHAT IS THE NATIONAL COASTAL ASSESSMENT (NCA)?



- Five-year effort, led by EPA-ORD
- Survey of the condition of the Nation's coastal resources (estuarine and off-shore)
- Creates an integrated, comprehensive coastal monitoring program to assess coastal ecological condition.
- Strategic partnership with all 24 coastal states and Puerto Rico
- Uses probabilistic design and a common set of indicators
 - This will allow each state to assess their estuarine resources independently, yet integrate the data at EPA regional, biogeographical, and national levels.

National Coastal Assessment A Growing Partnership



EPA: ORD, Regions, Office of Water

NOAA
USGS
USDA
DOI
States



The Role of The National Coastal Assessment



Broad - National Coastal Survey

NCA will help address some basic questions:

- What are the conditions of the estuarine resources in the U.S., how are they changing, and what are the causes of those changes?
- How well do different coastal condition indicators and monitoring designs work?



NCA Information on the Web:

http://www.epa.gov/emap/nca/index.html

The Role of The National Coastal Assessment

Broad - National Coastal Survey



- Goals
- Strategy
- Approach



NCA GOALS



- Assess the ecological condition of estuarine resources.
 - Based on unbiased data of known quality
- Determine reference conditions for studies on ecological responses/stressors.
- Build infrastructure in states and EPA Regions.



NCA STRATEGY



- Partner with state resources agencies for collection,
 processing and analysis of samples
- Develop state and regional infrastructure
- Develop state and regional understanding



NCA APPROACH



- Utilize consistently measured indicators to assess and help explain estuarine condition
- Utilize probability surveys
 - Extrapolates to all estuarine waters
 - Addresses 305(b) requirements
 - 100% assessed waters
- Incorporate existing monitoring programs, develop hybrid monitoring designs



NCA Consistently Measured Indicators/NCA Core Indicators:



Water Quality

- dissolved oxygen (DO)
- salinity
- temperature
- pH
- depth
- light attenuation
- Secchi depth
- dissolved nutrients
- chlorophyll a
- total suspended solids (TSS)

Sediment Quality

- sediment contaminants (organics & metals)
- Sediment TOC
- Sediment toxicity (amphipod)
- Percent silt/clay

Biota

Fish/Shellfish

- community structure (fish)
- tissue contaminants (organics & metals)
- external pathology (fish)

Benthos

- community Structure

Habitat

- SAV (presence/absence)
 West Coast & Gulf Coast
- basic habitat type (e.g., open water, tidal flat)
- Marine debris (presence/absence)

NATIONAL COASTAL CONDITION REPORTS (NCCR)



NCCR I

(published September 2001)

- 1990 1996 data, collected by EMAP and its partners
- Assessment of 70% of estuarine resources (not all states participated)
- Seven ecological health indicators

NCCR II

(draft, due out September 2004)

- Based on 1997 2000 data, primarily EMAP
- Assessment of the 48 contiguous states and Puerto Rico
- 100% estuarine acreage assessed
- Five ecological health indicators



NCCR II on the web:

http://www.epa.gov/owow/oceans/nccr2/

Data:

http://oaspub.epa.gov/coastal/coast.search http://www.epa.gov/storet/dw home.html

ECOLOGICAL HEALTH INDICATORS



NCCR I

- Water Clarity
- Dissolved Oxygen
- Coastal Wetlands
- Eutrophic Condition
- Sediment
- Benthos
- Fish Tissue

ONLINED STATES NO NUMBER AND PROTECTION PROTECTION

NCCR II

- Coastal Habitat Index
- Water Quality Index
- Sediment Quality Index
- Benthic Index
- Fish Tissue Index

NCA – THE FUTURE A NATIONAL STRATEGY



Research and Monitoring within an Integrated Assessment Framework:

- Characterization of the problem
- Diagnosis of Causes
- Diagnosis of interactions and forecasting

Next Steps:

- Refining list of indicators
- Putting longer-term monitoring designs in place
- Electronic, web-based reporting

